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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,757	07/24/2003	Billy Norman	31599/242443	1737
826	7590	08/11/2004	EXAMINER	
ALSTON & BIRD LLP BANK OF AMERICA PLAZA 101 SOUTH TRYON STREET, SUITE 4000 CHARLOTTE, NC 28280-4000			LANGDON, EVAN H	
			ART UNIT	PAPER NUMBER
			3654	

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/626,757

Applicant(s)

NORMAN, BILLY

Examiner

Evan H Langdon

Art Unit

3654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 07/24/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

Claim 1 objected to because of the following informalities: the limitation “rotation” on lines 14, 17 and 24 should be properly written as “rotational” to convey a more clear understanding of the term. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "relatively wide" and "relatively narrow" in claim 1 are a relative term which renders the claim indefinite. The terms "relatively wide" and "relatively narrow" are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

In regards to claim 1, lines 13 and 16, the terms “relatively wide” and “relatively narrow” render the claims indefinite.

In regards to claim 2, line 3, it is unclear what is meant by the recitation of the term “substantially undepressed”.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rummage (US 5,328,121) in view of Gerhards (US 5,927,637).

In regards to claim 1, Rummage discloses a yarn core 10 for winding yarn wherein a yarn string-up process is employed for attaching a yarn to the core to begin winding the yarn onto the core, the yarn core comprising:

a tubular core 10 having an outboard end and an inboard end, a wall of the core having an outer surface and an inner surface with a thickness defined there between, a yarn start-up groove 14 being formed in the outer surface of the core wall proximate the outboard end, wherein the start-up groove comprises a generally V-shaped groove formed in the outer surface of the core wall partway through the thickness, the groove having opposing inboard and outboard walls wherein the inboard wall faces generally toward the outboard end of the core, the groove comprising:

a wide V-shaped lead-in groove 14 extending circumferentially from a leading end to a trailing end thereof with respect to a rotational direction of the core wall, as seen in Figures 2 and 4;

a narrow V-shaped clamping groove 16 extending circumferentially from a leading end to a trailing end with respect to the rotational direction of the core wall, the

Art Unit: 3654

leading end of the clamping groove being located proximate the trailing end of the lead-in groove, as seen in Figure 2 and 5;

a V-shaped transition groove extending between the trailing end of the lead-in 14 groove and the leading end of the clamping groove 16, as seen in Figure 2.

Rummage fails to show a yarn latch located in the transition groove.

Gerhards teaches a yarn latch 5 located in a transition groove, the yarn latch comprising a tapering protrusion 4 projecting from the inboard wall of the groove generally in the rotational direction of the core wall and extending toward the outboard wall 7.2 of the groove partway across a width defined between the inboard and outboard walls, the yarn latch serving to snag a yarn led into the lead-in groove.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the transition groove of Rummage to include a yarn latch as suggested by Gerhards, to improve catching yarn during a bobbin changing operation..

In regards to claim 2, Rummage as modified by Gerhards teaches the inboard and outboard walls of the lead-in 14 and transition grooves are depressed below the outer surface of the core wall (Fig. 4, Rummage) while the yarn latch is substantially flush with the outer surface (Fig. 1, Gerhards).

In regards to claims 3 and 4, Rummage as modified by Gerhards teaches the lead-in groove 14 in cross-section defines a radially outer portion having the inboard and outboard walls sloped relatively shallowly toward each other 32,34, and a radially inner portion having the inboard and outboard walls sloped relatively steeply toward each other 24,30 and coming together at a bottom of the lead-in groove 26 (Rummage).

In regards to claims 5 and 6, Rummage as modified by Gerhards teaches the yarn start-up groove 14 extends about more than half the circumference of the core and the lead-in groove extends about at least one-quarter of the circumference of the core (Rummage).

In regards to claims 7 and 8, Rummage as modified by Gerhards teaches wherein the lead-in groove 14 has a constant width except for a tapered portion at the leading end of the lead-in groove (Fig. 2 Rummage), and the clamping groove 14 has a constant width along substantially the entire length.

In regards to claim 9, Rummage as modified by Gerhards teaches the yarn latch 5 (Gerhards) is formed by a first wall 7.1 that extends from a bottom of the start-up groove radially outwardly to the outer surface of the core wall at an inclined angle and a second wall 6 that intersects the first wall at a tip of the yarn latch and extends from the tip in a direction generally opposite to the rotational direction of the core and at an angle relative to a circumferential direction of the core and intersects with a third wall 7.3 comprising the inboard wall of the start-up groove, a narrowing space being defined between the second 6 and third walls 7.3 in which the yarn is wedged during a string-up operation (Gerhards).

In regards to claim 10, Rummage as modified by Gerhards teaches the third wall 7.3 is inclined relative to a radial direction depressed below the outer surface of the core wall (as taught by Rummage).

In regards to claim 11, the second wall 6 extends from the bottom of the start up groove radially outward to the outer surface of the core wall.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evan H Langdon whose telephone number is (703)-306-5768. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (703)-308-2688. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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